REMARKS

Claims 1-22 are rejected. Claims 1 and 10 have been amended. Claim 9 has been canceled. Claims 1-8, 10-22 are presently pending in the application. Favorable reconsideration of the application in view of the following remarks is respectfully requested.

The basis for the amendment of claims 1 and 10 is found in claim 9 as originally filed.

Rejection Of Claims 1-22 Under 35 U.S.C. §103(a):

The Examiner has rejected Claims 1-22 under 35 U.S.C. §103(a) as being unpatentable over Brick et al (US 6,269,342 131) in view of Kobayashi (US 2002/0005827 Al). as, regarding claims 1-4, 7-13, 20, and 22: Brick et al teaches a display system comprising: a) a writeable display associated with an identification code and arranged to receive data to form an image on the display, b) a display writer for producing the data for writing the image on the display, c) a scanner connected to the display writer for sensing the identification code, d) a processor linked to the scanner and the display writer and responsive to the identification code for programming the display writer to write an image associated with the identification code; wherein the identification code is a UPC; wherein the identification code is on a holder for the display; wherein the display is a shelf tag; wherein the identification code is on a display; further comprising a central processor containing display information associated with the identification code that is linked to the scanner and the display writer by a wireless communication link; a support including a printable surface; wherein the identification code is printed on the printable surface of the support; wherein the scanner is a bar code scanner; wherein the scanner and the writer are included in a hand held unit. The Examiner notes that Brick et al fails to specifically teach the display being a light writeable display arranged to receive an image wise pattern of light under a constant electric field to form an image on the display, the display writer producing the image wise pattern of light; wherein the light writeable display includes: a pair of conductors, at least one conductor being transparent; a layer of cholesteric liquid crystal material disposed between the conductors, the cholesteric liquid crystal material having multiple stable optical states at zero electrical field; and a light absorber for forming an image wise thermal pattern in the cholesteric liquid crystal sufficient to change the optical state of the

cholesteric liquid crystal in response to an image wise pattern of light; wherein the light writeable display is attached to a support having contacts for making contact with the conductors on the light writeable display and for providing external access to the conductors; wherein the display writer includes: a light source for producing a flash unit of light of sufficient intensity to generate sufficient heat in the light absorber to change the optical state of the cholesteric liquid crystal; an electronically programmable mask located between the light source and the display for defining the image wise pattern of light; a display drive connectable to the contacts for generating an electric field between the conductors for changing the optical state of the cholesteric liquid crystal; and a controller connected to the light source and the display drive for controlling the intensity of the electrical field and actuating the light source to create an image on the display, but Kobayashi teaches a display system, comprising: a) a light writeable display arranged to receive an image wise pattern of light under a constant electric field to form an image on the display; b) a display writer for producing the image wise pattern of light for writing the image on the display; wherein the light writeable display includes: a pair of conductors, at least one conductor being transparent; a layer of cholesteric liquid crystal material disposed between the conductors, the cholesteric liquid crystal material having multiple stable optical states at zero electrical field; and a light absorber for forming an image wise thermal pattern in the cholesteric liquid crystal sufficient to change the optical state of the cholesteric liquid crystal in response to an image wise pattern of light; wherein the light writeable display is attached to a support having contact: for making contact with the conductors on the light writeable display and for providing external access to the conductors; wherein the display writer includes: a light source for producing a flash unit of light of sufficient intensity to generate sufficient heat in the light absorber to change the optical state of the cholesteric liquid crystal; an electronically programmable mask located between the light source and the display for defining the image wise pattern of light; a display drive connectable to the contacts for generating an electric field between the conductors for changing the optical state of the cholesteric liquid crystal; and a controller connected to the light source and the display drive for controlling the intensity of the electrical field and actuating the light source to create an image on the display, making it obvious to one of ordinary skill in the art at the time of the invention to

include, with the system as taught by Brick et al, the display being a light writeable display arranged to receive an image wise pattern of light under a constant electric field to form an image on the display, the display writer producing the image wise pattern of light; wherein the light writeable display includes: a pair of conductors, at least one conductor being transparent; a layer of cholesteric liquid crystal material disposed between the conductors, the cholesteric liquid crystal material having multiple stable optical states at zero electrical field; and a light absorber for forming an image wise thermal pattern in the cholesteric liquid crystal sufficient to change the optical state of the cholesteric liquid crystal in response to an image wise pattern of light; wherein the light writeable display is attached to a support having contacts for making contact with the conductors on the light writeable display and for providing external access to the conductors; wherein the display writer includes: a light source for producing a flash unit of light of sufficient intensity to generate sufficient heat in the light absorber to change the optical state of the cholesteric liquid crystal; an electronically programmable mask located between the light source and the display for defining the image wise pattern of light; a display drive connectable to the contacts for generating an electric field between the conductors for changing the optical state of the cholesteric liquid crystal; and a controller connected to the light source and the display drive for controlling the intensity of the electrical field and actuating the light source to create an image on the display; in order to provide a display that will maintain the image without electric power, thereby reducing energy consumption of the system.

Brick relates to an electronic pricing and display system using programmable electronic shelf tags that are used in connection with apparatus for programming the electronic shelf tags. Pricing and product information is stored in databases of a computer system for such purposes as inventory control and updating pricing information. A portable programming device is used to transmit programming data. Methods are provided for fast and convenient modification of large numbers of electronic shelf tags located throughout a facility

Kobayashi relates to a photo-addressable type recording display apparatus realizes high sensitivity recording display and realizes recording display with short writing pulse application time. The photo-addressable type recording display apparatus is provided with a recording unit that displays an image, a light

writing unit that writes an image in the recording unit by the pattern of light, and a control unit that controls the recording unit and the light writing unit. The recording unit is provided with a spatial light modulation element and a driving unit, and the spatial light modulation element has a memory liquid crystal display element layer and organic photoconductive switching element layer. The control unit determines the magnitude and the application time of a voltage that is applied on the spatial light modulation element by the driving unit so that the threshold voltage corresponds to the voltage waveform determined correspondingly to the comparative magnitude relation between the time constant D of the liquid crystal display element layer and the time constant S of the organic photoconductive switching element layer during non-irradiation with light and irradiation with light by the light writing unit, and supplies a trigger signal for driving waveform output to the driving unit.

The present invention relates to a display system having a light writeable display associated with an identification code and arranged to receive an image wise pattern of light under a constant electric field to form an image on the display; a display writer for producing the image wise pattern of light for writing the image on the display; a scanner; and a processor. The light writeable display includes a pair of conductors, at least one conductor being transparent; a layer of cholesteric liquid crystal material disposed between the conductors, the cholesteric liquid crystal material having multiple stable optical states at zero electrical field; and a light absorber for forming an image wise thermal pattern in the cholesteric liquid crystal sufficient to change the optical state of the cholesteric liquid crystal in response to an image wise pattern of light.

To establish a prima facie case of obviousness, first, there must be some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine references teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations.

As noted by the Examiner, Brick fails to disclose a light writeable display as disclosed in the present invention. Moreover, Brick fails to disclose a light writeable display arranged to receive an image wise pattern of light under a constant electric field to form an image, as claimed by the instant invention.

Kobayashi also fails to disclose a light writeable display that can receive an image wise pattern of light under a constant electric field to form an image. Kobayashi discloses a light switching element layer with variable impedance (paragraph 0043). Although Kobayashi mentions a driving pulse generation unit in Fig. 8 and [0193], the field across the display is not a constant field, as result of the photoconductive layer. See Fig. 1A-1E, [0045], and Fig. 2A-2T, [0046]. See also [0088], corresponding to Fig. 2C and 2D. Kobayashi teaches a photoconductive layer, which is "an optical functional layer that is capable of light absorption and capable of photoelectric transformation for converting the absorbed light to the charge in quantity equivalent to the absorbed light." See [0153]. The present invention claims "a light absorber for forming an image wise thermal pattern in the cholesteric liquid crystal". Neither reference, alone or in combination, teaches or suggests a light writeable display, which includes a light absorber for forming an image wise thermal pattern in the cholesteric liquid crystal and is arranged to receive an image wise pattern of light under a constant electric field to form an image.

Since neither reference suggests a light writeable display arranged to receive an image wise pattern of light under a constant electric field to form an image, no reasonable expectation of success is provided by the references. The flash writing of the present invention allows for much lower applied voltages. Figure 4 shows that the instant invention can operate at an applied voltage from approximately 20-60V, this utilizes less than one-forth the power as disclosed in Kobayashi. Kobayashi, Fig. 7, indicates that the invention of Kobayashi would be inoperable at the voltages used by the instant invention. Surprisingly, the instant invention forms an image by light writing, without the use of a photoconductive layer or variable impedance (Figure 2). By not needing a photoconductive layer, the present invention can be manufactured cheaper than the display as taught by Kobayashi. Furthermore, because the instant invention flash writes to the display the image can be formed quicker than if the light energy had to be converted through a photoconductive layer as taught by Kobayashi.

Finally, since neither reference discloses a light writeable display arranged to receive an image wise pattern of light under a constant electric field to form an image, the references fail to teach or suggest all of the present claim limitations.

Since neither reference alone or in combination provides any suggestion or motivation to modify the references or to combine references teachings, provides a reasonable expectation of success or teaches or suggests all the claim limitations, the Applicants request that the Examiner reconsider and withdraw the rejection.

Claims 5, 6, 14-19 and 21 depend from independent claim 1, which, as discussed above, Applicants believe to be non-obvious in light of the applied references.

It is believed that the foregoing is a complete response to the Office Action and that the claims are in condition for allowance. Applicants respectfully request that this amendment be admitted in order to present the rejected claims in better form for consideration on appeal.

Respectfully submitted,

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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.